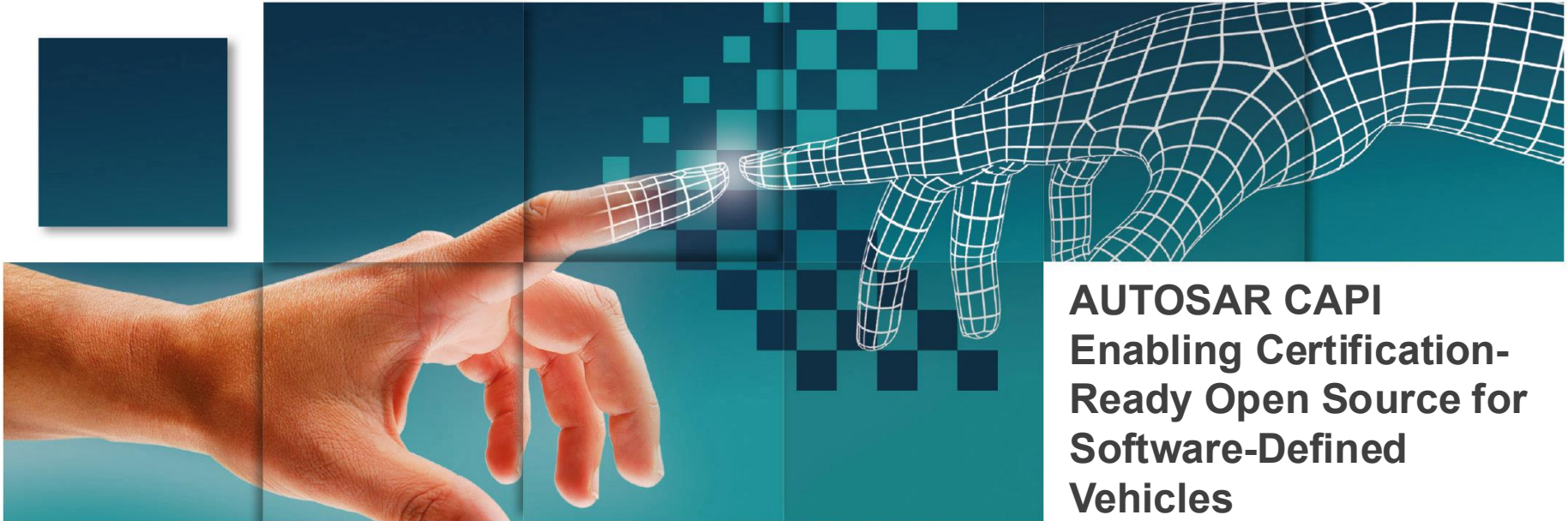




develop group
Connect for Competence!



**AUTOSAR CAPI
Enabling Certification-
Ready Open Source for
Software-Defined
Vehicles**

AUTOSAR – an Overview

Standardization of non-differentiating
middleware components and
methodology

350+ partners worldwide
OEMs, suppliers, tool vendors,...



Classic Platform

- Optimized for hard real-time deeply embedded applications
- Layered software architecture
- Signal-based communication

Adaptive Platform

- Optimized for high-performance applications in connected cars and software-defined vehicles (SDV)
- Multi-core processors, POSIX OS
- Loosely coupled Functional Clusters
- Service-based communication

Common Adaptive Platform Implementation (CAPI)

- Goals
 - Eliminate the need to develop non-differentiating features
 - Accelerate time-to-market
 - Reduce development costs and complexity
 - Automotive-grade quality: traceability, safety, and security
 - AUTOSAR standard compliance and interoperability
 - Foster ecosystem innovation
 - Support code-first approach

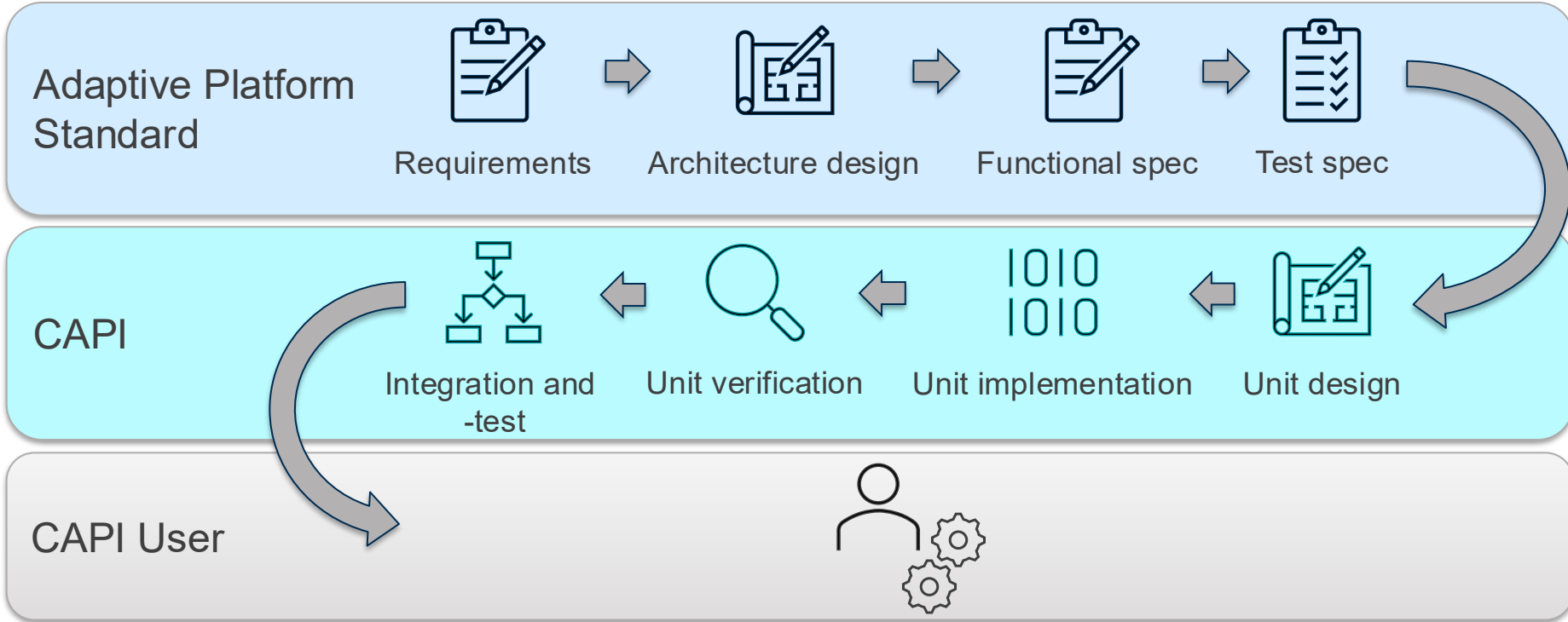


Key aspects

- Production-ready AUTOSAR standard compliant source code
- Publicly accessible and commercially usable by AUTOSAR partners
- Collaborative development and testing
- Faster innovation through a stable, evolving foundation
- Real-world validation drives specification improvements
- Open-source development
- Quarterly automotive-grade releases



CAPI's Contribution

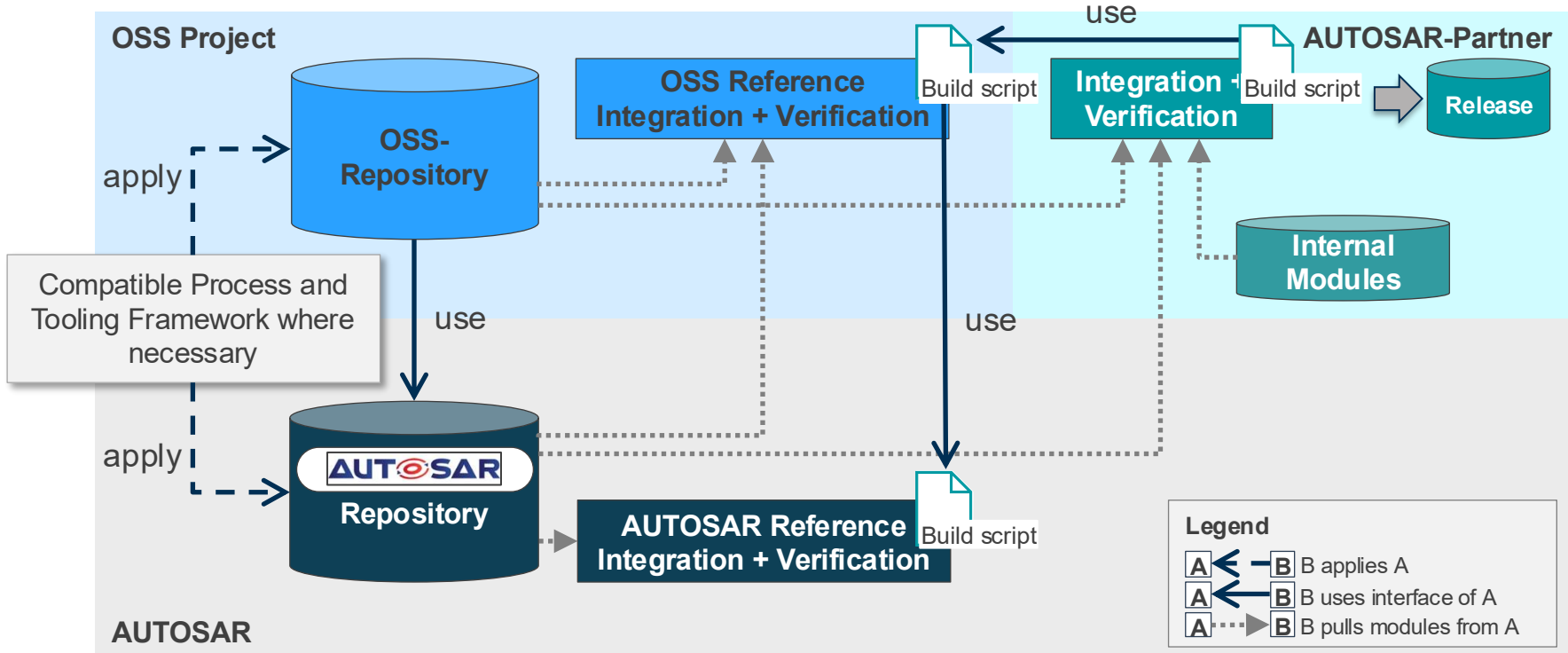


Exemplary Use Cases

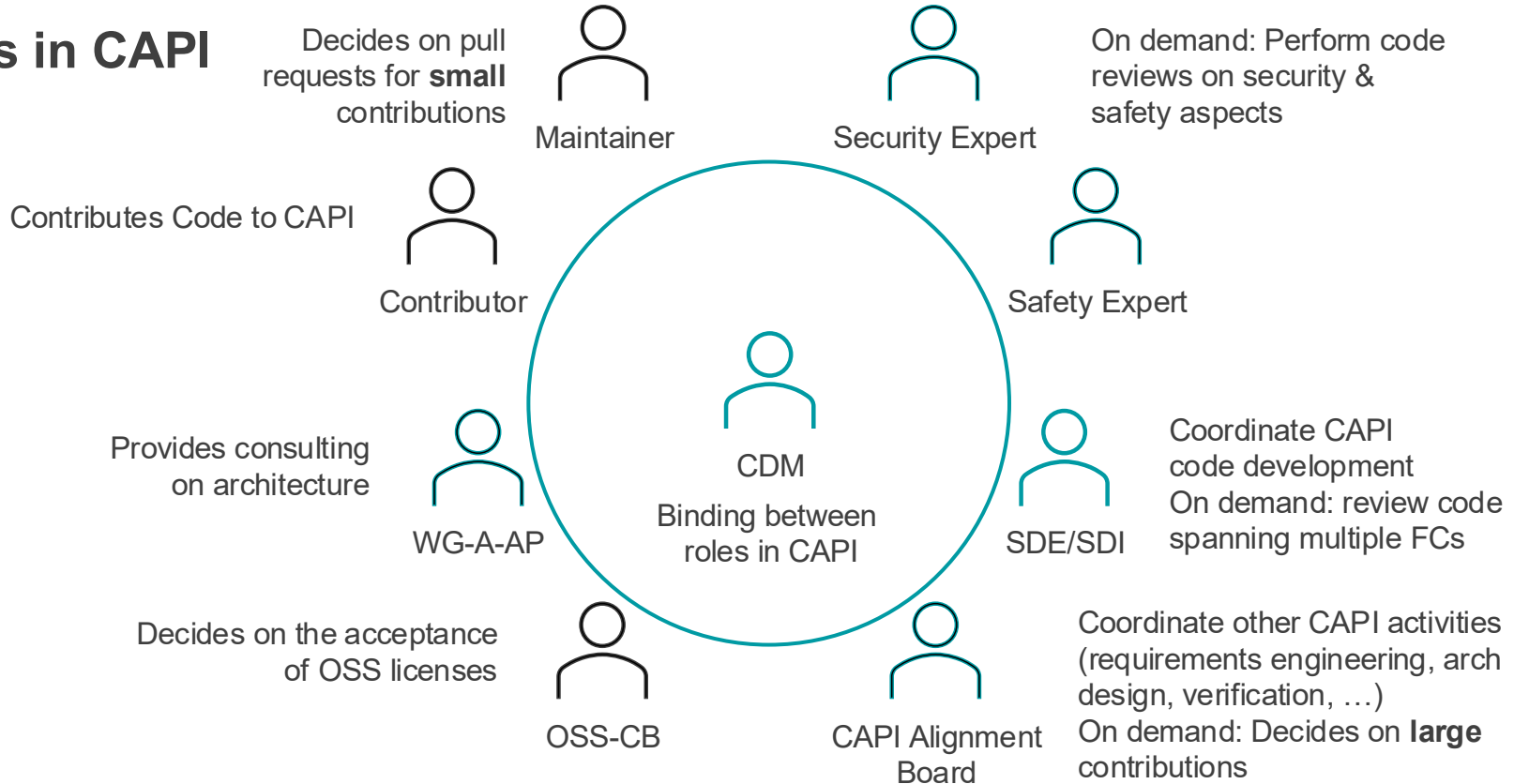
Adaptive Platform Standard	Specifications
	Architecture, Interfaces, and Functional Behavior
	Functional Safety & Cybersecurity Framework
CAPI	Non-differentiating Middleware Components
	Automotive-Grade Code
	Certification-Ready Implementation
CAPI User	Differentiated Features
	Faster Time-To-Market & Interoperability
	Trust & Simplified Certification

- Partial Utilization
 - Complete own stack
 - Substitute purchased stack
 - Partial usage of Functional Clusters
- Usage as a whole
 - Product development
 - Basis for own stack
 - Training and demonstration
- Complementary
 - Foundation for OSS projects
 - Better integration of products
 - Verification of the standard
 - Business opportunities and safeguarding

OSS Collaboration Model

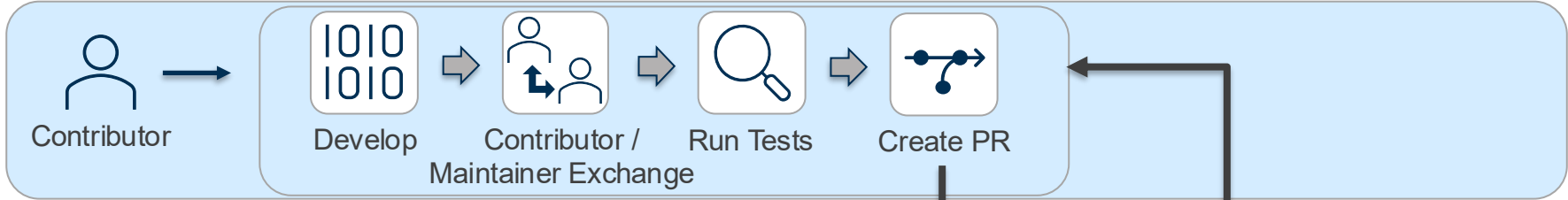


Roles in CAPI

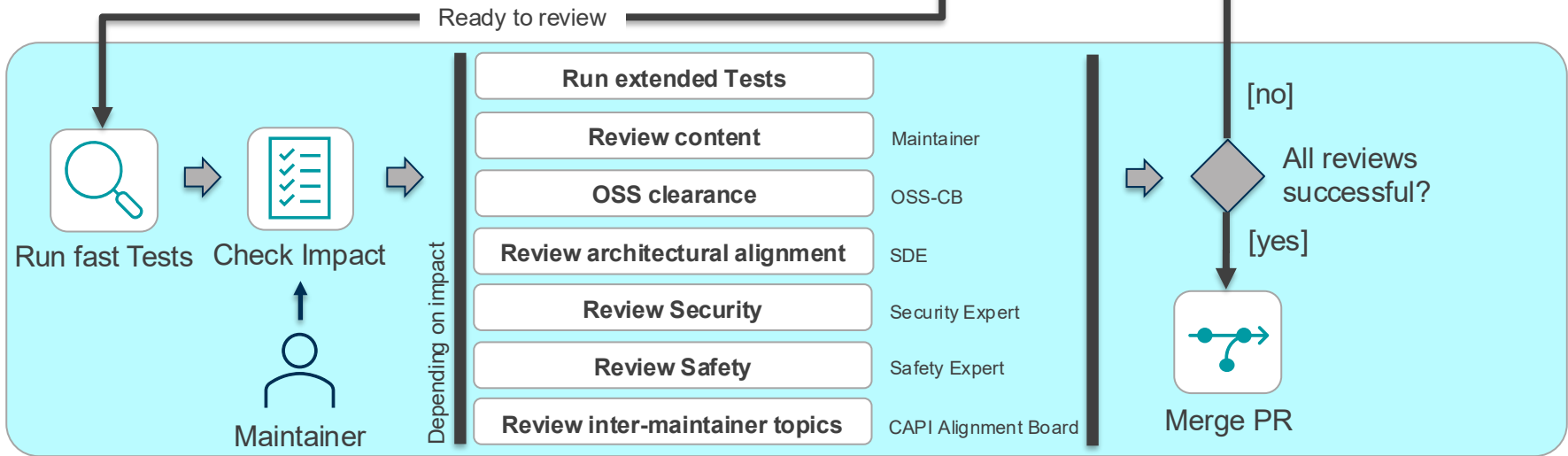


Code Contribution Workflow

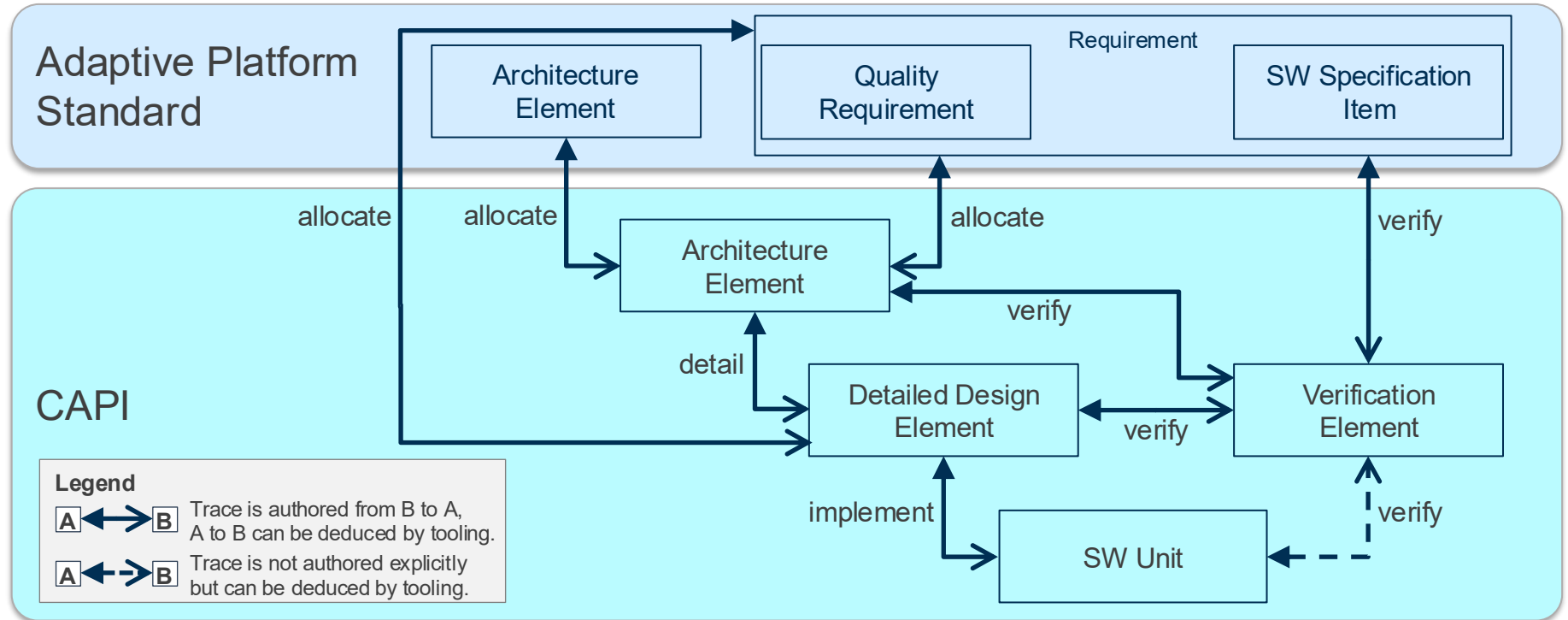
Preparation



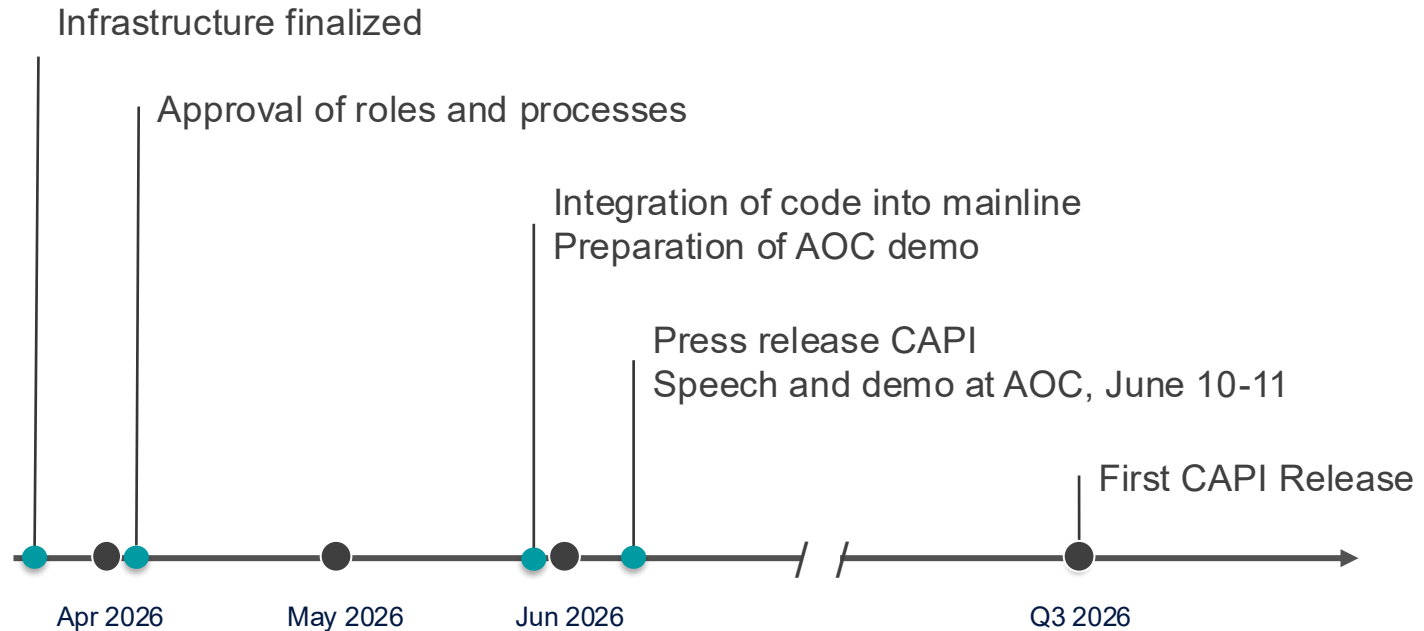
Review



Traceability Concept



CAPI High Level Timeline 2026





Organization and repositories

JG CAPI

Key group in AUTOSAR to receive project information and first entry point to get involved into CAPI

WG-AP-CC CAPI Contributors

Group of experts contributing to CAPI code

WG-AP-CI CAPI Infrastructure

Specialized group of experts contributing to the CAPI infrastructure

WG-AP-ST System Tests

Specialized group of experts contributing to system tests

github.com Public CAPI Release

Without information on partner commits

<https://github.com/autosar>

↑ Quarterly release

Internal GitHub Enterprise

Accessible by active contributors with an AUTOSAR Development license (Source / Main line)

<https://autosar.ghe.com/>

Traceability Concept and ASPICE 4.0

